

### **REMARKS**

An Excess Claims Fee letter and fee are concurrently submitted herewith for one excess total claim.

Claims 1-30 are all the claims presently pending in the application. New claim 30 is added.

It is noted that Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-6 and 12-26 are allowed. Applicants gratefully acknowledge that claims 8, 9, and 11 would be allowable if rewritten in independent form. However, Applicants respectfully submit that all of the claims are allowable.

Claim 7 stands rejected under 35 USC §102(e) as anticipated by US Patent 6,294,439 to Sasaki et al., and claim 10 stands rejected under 35 USC §103(a) as unpatentable over Sasaki. It is again noted that the Examiner seems to have overlooked claims 27-29, as the claims were amended and augmented in the Preliminary Amendment filed on June 23, 2003.

These rejections are respectfully traversed in the following discussion.

#### **I. THE CLAIMED INVENTION**

As described, for example in claim 7, the claimed invention is directed to a method of producing a plurality of semiconductor elements by individually dividing semiconductor elements formed on a substrate by performing a polishing or blasting process on separation grooves after forming said separation grooves by laser beam irradiation.

This polishing or blasting of the area of the grooves cleans out the substrate melt and re-solidificated remains left by the laser beam irradiation. As explained at lines 20-25 of page 3, such remains cause opaque deposits on the outer surface of the light emitting elements, particularly when the elements are formed on a transparent sapphire substrate, thereby reducing the light-extracting efficiency of the element. As further explained at lines 1-5 of page 4, the molten semiconductor material can also cause undesirable effects such as short circuits.

In contrast, in the above-described embodiment of the present invention, the polishing or blasting process removes most of the substrate melt and re-solidification remains in the

separation grooves, thereby reducing the loss of efficiency of the conventional method due to the re-solidified substrate melt, as specifically stated at lines 14-23 of page 14.

## II. THE PRIOR ART REJECTION

The Examiner alleges that Sasaki teaches the claimed invention described by claim 7 and renders obvious the invention described in claim 10. Applicants submit, however, that there are elements of the claimed invention which are neither taught nor suggested by Sasaki.

As explained in the Abstract and elsewhere, Sasaki teaches an entirely different method of separating chips using a laser etch and subsequent polishing or blasting process, since the subsequent polishing in Sasaki occurs on the opposite side from the separation grooves 22 that are optionally formed by laser irradiation.

Sasaki forms grooves 22 on a pattern formation surface (major surface of wafer 21) as described in lines 24-28 of column 8 and shown in Figure 8, and then laps (or blasts) the rear surface of the wafer 21, as clearly described in lines 35-39 of column 1, lines 22-33 of column 9, and Figure 11.

In contrast, the present invention performs polishing or blasting with respect to the separation grooves themselves. For this reason, Applicants submit that the claimed invention is clearly completely different from Sasaki, even as originally worded. However, in an effort to expedite prosecution, Applicants have attempted to find wording for claim 7 that the Examiner might find more acceptable.

More specifically, relative to claim 7, the Examiner points to Figures 8 and 9 and lines 35-45 of column 1 and lines 4-10 of column 9 of Sasaki and alleges that this description teaches the invention described in that claim.

Applicants respectfully disagree, since the "lapping and polishing amount" shown in Figure 9 clearly shows that the polishing is not done on the separation grooves that have been formed on the front surface.

Hence, turning to the clear language of the claims, in Ikegami, there is no teaching or suggestion of: "... performing a polishing or blasting process on separation grooves after forming said separation grooves by laser beam irradiation", as required by claim 7.

Therefore, Applicants submit that there are elements of the claimed invention that are not taught or suggested by Sasaki, and the Examiner is respectfully requested to reconsider

and withdraw these rejections based on Sasaki.

### III. FORMAL MATTERS AND CONCLUSION

The Examiner requested that Figures 26A-31 be labeled as "Prior Art", since allegedly only that which is old is illustrated. However, Applicants respectfully decline to have these figures attributed as being prior art against the present invention, since these figures were intended as providing a background discussion for the present invention and do not reflect practices that were well known in the art. Although some figures are mentioned in the "Background of the Invention" section of the specification, the references JP-A-7-131069, JP-A-5-315646, or JP-3230572B2, recited as "Related Art" in the specification, do not disclose similar drawings to Figures 26A-31. Thus, Applicants submit that these figures are, indeed, at most, "related art" as knowledge of the present inventors and used for purpose of explanation, but is not "prior art" that serves as a basis for a prior art reference. Therefore, Applicants respectfully requests that the Examiner provide evidence of the "prior art" status, if such objection is maintained.

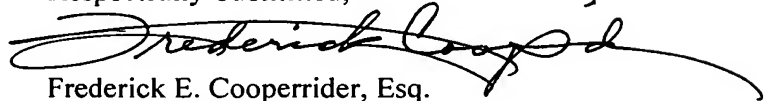
In view of the foregoing, Applicants submit that claims 1-30, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

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Respectfully Submitted,



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